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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,765	12/26/2001	Hong Man Moon	8733.514.00	5858

30827 7590 03/14/2003

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EXAMINER

NGUYEN, HOAN C

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/025,765	MOON, HONG MAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	HOAN C. NGUYEN	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Claim Objections*

Claims 1, 5, 9, 23 and 24 are objected to because of the following informalities:

- "A passivation film on the surfaces of the first and second substrates" in claims 1, 5, 9, 24 should be read "passivation films on the surfaces of the first and second substrates".
- There is insufficient antecedent basis for the following limitations in the claims.
  - "etching the glass substrate" in claim 23;

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-3, 5-7, 9-11, 14-20, 23-26, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim (US6327011B2).

In regard to claims 1-3, 5-7, 9-11, 24-26 and 28-29, Kim teaches (Figs. 1a-b and 2-4) LCD device comprising:

- first and second etched glass substrates having normally refractive index of 1.50;
- a liquid crystal layer 15 between the first and second etched substrates; and
- passivation films (protection film 8/18) outside the first and second etched substrates, this passivation films have refractive index of 1.4-1.6 (1.4 about 10% of 1.5 or 1.5 about 10% of 1.6)

wherein

- the passivation film is formed of a material having a refractive index within about 10% difference of the refractive index of at least one of the first and second etched substrates.
- injecting a liquid crystal between the first and second substrates, after forming the passivation film on the surface of the first and second substrates (claim 14).
- polishing the surface of the first and second substrates after etching a surface of at least one of the first and second substrates.
- Polishing (grinding) includes mechanically polishing the assembled substrates while spraying coolant on the assembled substrates.

- mechanically polishing includes polishing with sandpaper; mechanically polishing includes polishing with a polisher. They are steps includes in grinding step.
- the etching includes dipping the substrate into an etchant (claim 20).
- assembling the first and second substrates with each other includes a sealing pattern.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 8, 13 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US6327011B2) as claims 1, 5, 9 and 24 above, in view of Otaki et al. (US6509076B1).

Otaki et al. teach the organic film made of photo-acrylate for pressure-sensitive adhesive layer.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify LCD device comprising as Kim disclosed with the organic film made of photo-acrylate for pressure-sensitive adhesive layer.

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3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US6327011B2) as claim 9 above, in view of Walters et al. (US6150430A).

Walter et al. teach the organic film is formed by a spin coating process for preparing a thin organic film.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify LCD device comprising as Kim disclosed with teach the organic film is formed by a spin coating process for preparing a thin organic film.

4. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US6327011B2) as claim 9 above, in view of Dob (US20020079289A1).

Dob teaches the etchant is an HF solution by exothermic reaction between the glass substrate and the etchant for uniformly etching the surface of the glass substrate.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify LCD device comprising as Kim disclosed with the etchant is an HF solution by exothermic reaction between the glass substrate and the etchant for uniformly etching the surface of the glass substrate.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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Petrmichl et al. (US5888593A) disclose an ion beam process for deposition of highly wear-resistant optical coatings.

Yoshida (US5818559A) discloses liquid crystal display having different linear expansion coefficients among the materials of the display.


Kim (US5989450A) discloses etchant for etching glass substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (703) 306-0472. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

HOAN C. NGUYEN  
Examiner  
Art Unit 2871

chn  
March 3, 2003

  
TOANTON  
PRIMARY EXAMINER